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Family Functioning and Mental Health of Transgender and Gender Nonconforming Youth in the Trans Teen and Family Narratives Project

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Abstract

Transgender and gender nonconforming (TGN) youth are at increased risk for adverse mental health outcomes, but better family functioning may be protective. This study describes TGN youths' mental health and associations with family functioning in a community-based sample. Participants were from 33 families (96 family members), including 33 TGN youth, ages 13–17 years, 48 cisgender (non-transgender) caregivers, and 15 cisgender siblings. Participants completed a survey with measures of family functioning (family communication, family satisfaction) and mental health of TGN youth (suicidality, self-harm, depression, anxiety, self-esteem, resilience). TGN youth reported a high risk of mental health concerns: suicidality (15–30%), self-harm (49%), clinically significant depressive symptoms (61%); and moderate self-esteem (M=27.55, SD=7.15) and resiliency (M=3.67, SD=0.53). In adjusted models, better family functioning from the TGN youth's perspective was associated with better mental health outcomes among TGN youth (β ranged from −0.40 to −0.65 for self-harm, depressive symptoms, and anxious symptoms, and 0.58 to 0.70 for self-esteem and resiliency). Findings from this study

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highlight the importance of considering TGN youths' perspectives on the family to inform interventions to improve family functioning in families with TGN youth.

Keywords

family functioning; family systems; gender nonconforming; mental health; minority stress; transgender

Transgender and gender nonconforming (TGN) youth who identify with a different gender than their sex assigned at birth are at increased risk for adverse mental health outcomes compared to their cisgender (non-transgender) peers (Connolly, Zervos, Barone, Johnson, & Joseph, 2016; Reisner et al., 2015). This increased risk has been attributed to minority stress associated with stigma related to being transgender (Hendricks & Testa, 2012; Meyer, 2003). Family support and acceptance are protective for TGN youths' mental health (Ryan, Russell, Huebner, Diaz, & Sanchez, 2010; Simons, Schrager, Clark, Belzer, & Olson, 2013). From a family systems perspective (Cox & Paley, 1997; Minuchin, 1985), a TGN youth's transition from the gender associated with their sex assigned at birth to another gender affects the functioning of the whole family. Aspects of family functioning (e.g., quality of communication among family members, satisfaction with family functioning) may likewise be associated with TGN youths' mental health. The current study examined mental health of TGN youth and associations with family functioning in a community-based sample of families with TGN youth.

A growing body of research has provided evidence for an increased risk of adverse mental health outcomes among TGN youth compared to cisgender youth, including suicidality, self-harm, depression, and anxiety (Connolly et al., 2016; Reisner et al., 2015). Minority stress theory proposes that individuals who hold a minority status, such as TGN youth, may experience adverse health outcomes due to the stigma associated with being a minority (Hendricks & Testa, 2012; Meyer, 2003). Such stigma is evident in the high rates of bullying and victimization experienced by TGN individuals. In the U.S. Transgender Survey, a recent national study of transgender adults, 54% reported being victims of verbal harassment, 24% reported physical violence, and 13% reported sexual assault during the K-12 school years (James, Herman, Rankin, Keisling, Mottet, & Anafi, 2016); studies of TGN youth have also found pervasive harassment due to transgender identity (McGuire, Anderson, Toomey, & Russell, 2010).

Discrimination and victimization experienced by TGN individuals may also occur on the family level and may take more extreme forms, such as physical assault or disowning a TGN individual, as well as behaviors that do not affirm a TGN individual's gender identity, such as using the wrong name or pronouns (i.e., "misgendering"), or not providing access to gender affirming medical care. The U.S. Transgender Survey found that 10% of adults who were out as transgender to their immediate family experienced violence from family members and 8% were kicked out of the house because they were transgender (James et al., 2016). However, among families with TGN youth who supported youth in socially transitioning to their affirmed gender, TGN youths' mental health did not differ from matched cisgender controls (Olson, Durwood, DeMeules, & McLaughlin, 2016).

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Previous research has highlighted the importance of family support for TGN youth's health and well-being (Olson et al., 2016; Simons et al., 2013; Travers, Bauer, Pyne, Bradley, Gale, & Papadimitriou, 2012). Although many transgender adults from the U.S. Transgender Survey reported negative experiences with family, 60% who were out to their families as transgender reported that their family was supportive of their gender identity (James et al., 2016). In comparison, the Trans PULSE Project found that 67% of TGN youth who were out to their parents and had begun to socially transition had parents who were not strongly supportive (Travers et al., 2012). Family systems theory proposes that family members are interdependent and that a transition experienced by one family member affects the larger family system (Cox & Paley, 1997; Minuchin, 1985). In families with TGN youth, transitioning from one gender to another has an effect on all family members (Katz-Wise et al., 2017).

Family members' capacity to support TGN youth may be related to the functional well-being of the family as a whole. Research on family adjustment following a family member's disclosure of sexual minority status (i.e., lesbian, gay, bisexual identity) suggests that family functioning prior to identity disclosure is associated with how family members respond and adjust to identity disclosure (Heatherington & Lavner, 2008); this may also extend to families with TGN youth. Although some previous research has begun to examine family support specifically within families with TGN youth, research has not yet examined family functioning in these families.

The aims of the current study were to describe the mental health status of TGN youth at baseline in an ongoing longitudinal study of families with TGN youth and to examine how TGN youths' mental health may be associated with family functioning reported by multiple family members. Quantitative data were analyzed from Wave 1 of the Trans Teen and Family Narratives Project (TTFN), a community-based longitudinal mixed methods study that examines how the family environment affects the health and well-being of TGN youth over time. We hypothesized that better family communication and greater family satisfaction would be associated with less self-harm, depression, and anxiety, and greater self-esteem and resiliency in TGN youth. We also hypothesized that family functioning reported by each type of family member (TGN youth, caregivers, siblings) would be significantly associated with TGN youths' mental health outcomes.

Method

Participants

Participants were a community-based sample of 96 family members from 33 families with TGN youth: 33 TGN youth, ages 13–17 years ($M = 15.18$, $SD = 1.24$); 48 cisgender caregivers (32 women, 16 men), ages 37–69 years ($M = 50.33$, $SD = 6.70$); 15 cisgender siblings (7 girls/women, 8 boys/men), ages 14–24 years ($M = 17.93$, $SD = 3.28$). Gender identities of TGN youth were: trans feminine assigned male at birth ($n = 12$), trans masculine assigned female at birth ($n = 17$), non-binary assigned female at birth ($n = 3$), and non-binary assigned male at birth ($n = 1$). Race/ethnicity of the sample was primarily White (73% TGN youth, 92% caregivers, 73% siblings) or mixed race/ethnicity (15% TGN youth,

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2% caregivers, 7% siblings). Other sample demographic characteristics are reported in Table 1.

Participants were recruited from a number of different community-based sources in New England that serve transgender youth and families, including support organizations, youth drop-in centers, LGBTQ organizations, homeless shelters, medical and mental health providers, and gender clinics. To be eligible to participate in TTFN, individuals had to be currently living in New England and meet one of the following criteria: 1) age 13–17 years and identify with a different gender than one's assigned sex at birth, 2) age 13 years or older and be a sibling of a TGN youth, or 3) age 18 years or older and be a parent or caregiver of a TGN youth. Both TGN youth and at least one family member were required to participate. All participants in the current study completed Wave 1 of data collection.

Procedure

As an ongoing longitudinal study, TTFN uses community-based participatory research (CBPR) principles to involve community members in multiple steps of the research process (Israel, Schultz, Parker, & Becker, 1998), including study design, participant recruitment, ongoing development of study materials, and interpretation of results. Specifically, this study utilizes community partners who represent a range of experiences related to families with TGN youth, including medical and mental health providers who serve TGN youth and families, support services for TGN youth and families, community advisory boards, as well as TGN individuals and caregivers themselves.

Data for the current study came from a survey implemented during Wave 1 of TTFN, which was collected between December 2015 and July 2016. Each participant completed a one-time one-on-one semi-structured interview and survey either at the researcher's offices or at the family's home. The average length of each interview was 45 minutes (range: 19–86 minutes). Different participating family members completed the interviews and surveys in separate private rooms. Participants who lived more than two and a half hours driving distance from the researchers' offices participated via video conference. Surveys were completed by participants under the supervision of interviewers on an iPad for in-person study sessions or online for study sessions conducted via video conference. Separate surveys were developed for each participant type (TGN youth, caregiver, sibling). At the start of each study session, youth participants gave written informed assent and adult participants gave written informed consent for themselves and for their participating children younger than age 18 years. Study sessions were conducted by interviewers who were LGBTQ-identified or allies. At the end of the study session, each participant received a $20 gift card. An in-depth safety plan was used to inform caregivers and connect youth to mental health services following disclosures of depression, self-harm, and suicidality, as well as to report child maltreatment. All study procedures were approved by the Boston Children's Hospital Institutional Review Board.

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Measures

Family Functioning Predictors

Family communication.: Family communication was assessed among TGN youth and caregivers at Wave 1, using an 8-item subscale from the Family Adaptability and Cohesion Evaluation Scales (FACES IV) (Olson, 2011). Siblings did not complete the family communication measure due to an error in the online survey. A sample item was, "Family members are very good listeners." Response options were on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Scale scores for each participant were calculated by summing the eight items; higher scores indicated healthier family communication. For this study, reliability of the family communication scale was $\alpha = .86$ for TGN youth and $\alpha = .74$ for caregivers.

Family satisfaction.: Family satisfaction was assessed among TGN youth, caregivers, and siblings at Wave 1, using a 10-item subscale from FACES IV (Olson, 2011). A sample item was, "The degree of closeness between family members." Response options were on a 5-point Likert scale ranging from 1 (very dissatisfied) to 5 (extremely satisfied). Scale scores for each participant were calculated by summing the 10 items; higher scores indicated greater family satisfaction. For this study, reliability of the family satisfaction scale was $\alpha = .91$ for TGN youth, $\alpha = .90$ for caregivers, and $\alpha = .96$ for siblings.

Mental Health Outcomes

Suicidality.: Suicidality was assessed among TGN youth at Wave 1 using items from the Youth Risk Behavior Surveillance System Survey (YRBS) (Centers for Disease Control and Prevention, 2013). TGN youth ages 13–14 years completed items from the middle school survey; TGN youth ages 15–17 years completed items from the high school survey. Suicidal thoughts were assessed for lifetime (ages 13–14 years) and past year (ages 15–17 years) with one binary item: 0 (no), 1 (yes). Suicide plan was assessed for lifetime (ages 13–14 years) and past year (ages 15–17 years) with one binary item: 0 (no), 1 (yes). Suicide attempts were assessed for lifetime (ages 13–14 years) and past year (ages 15–17 years) with one binary item: 0 (no), 1 (yes). Hospitalization for suicide was assessed for TGN youth with one item developed for the current study, which was completed by caregivers at Wave 1: "Has your transgender child ever been hospitalized for attempted suicide?" Response options were: 0 (no), 1 (yes).

Self-harm.: Self-harm was assessed among TGN youth at Wave 1 using one item, which was developed for the current study: "Have you ever intentionally hurt yourself not for suicidal reasons?" Response options were: 0 (no), 1 (yes).

Depression.: Depressive symptoms for the past week were assessed among TGN youth at Wave 1 using the 10-item Center for Epidemiologic Studies Depression Scale (CES-D) – Short Form (Radloff, 1977). A sample item was, "I was bothered by things that usually don't bother me." Response options ranged from 1 (rarely or none of the time – less than 1 day) to 4 (most or all of the time – 5–7 days). Items worded in the opposite valence were reverse coded, and a scale score was created by summing the 10 items; higher scores indicated

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greater depressive symptoms. CES-D scores that are ≥10 are considered to be clinically significant. For this study, reliability of the CES-D was α = .90 for TGN youth.

Anxiety.: Anxious symptoms were assessed among TGN youth at Wave 1 using the 6-item Spence Children's Anxiety Scale (SCAS) (Essau, Sasagawa, Anastassiou-Hadjicharalambous, Guzmán, & Ollendick, 2011; Spence, 1998; Spence, Barrett, & Turner, 2003). A sample item was, "I worry about things." Response options were on a 4-point Likert scale ranging from 1 (never) to 4 (always). A scale score was created by summing the items; higher scores indicated greater anxious symptoms. For this study, reliability of the SCAS was α = .87 for TGN youth.

Self-esteem.: Self-esteem was assessed among TGN youth at Wave 1 using the 10-item Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965). A sample item was, "On the whole, I am satisfied with myself." Response options were on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Items worded in the opposite valence were reverse coded and a scale score was created by summing the items; higher scores indicated greater self-esteem. For this study, reliability of the RSES was α = .94 for TGN youth.

Resilience.: Resilience was assessed among TGN youth at Wave 1 using the 22-item Resilience Scale for Adolescents (READ) (Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006). A sample item was, "I reach my goals if I work hard." Response options were on a 5-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree). A scale score was calculated by computing a mean of the items; higher scores indicated greater resiliency. For this study, reliability of the READ was α = .88 for TGN youth.

Mental health diagnoses.: Mental health diagnoses for TGN youth were assessed among caregivers at Wave 1 using one item developed for this study: "With which of the following has your transgender child been diagnosed?" Participants were instructed to choose all that applied from a list of diagnoses, which included self-injury disorder, depression, and anxiety disorder.

Sociodemographics

Sex assigned at birth.: Sex assigned at birth was assessed among TGN youth, caregivers, and siblings at Wave 1 using one item: "What was your assigned sex at birth?" Response options were: female, male.

Gender identity.: Gender identity was assessed among TGN youth, caregivers, and siblings at Wave 1 using one item: "What is your current gender identity?" Response options were: girl/woman, boy/man, trans girl/woman, trans boy/man, transgender/trans, genderqueer, another gender identity (open-ended). Participants could check all that applied. Response options were recoded into: trans feminine (assigned male and identify as girl/woman, trans girl/woman, or transgender/trans), trans masculine (assigned female and identify as boy/man, trans boy/man, or transgender/trans), and non-binary (assigned either female or male and identify as genderqueer or another written-in non-binary identity).

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Other sociodemographics.: Age in years was calculated for TGN youth, caregivers, and siblings at Wave 1 using the participant's date of birth and the date of the Wave 1 study session. Race/ethnicity and sexual orientation were assessed among TGN youth, caregivers, and siblings at Wave 1. Education level was also assessed among TGN youth, caregivers, and siblings at Wave 1 using different items for each age group and participant type (e.g., current grade in school for TGN youth and siblings, and highest level of completed education for caregivers). TGN youth's adoption status was assessed among caregivers at Wave 1, including the youth's age in years at the time of adoption was assessed. Caregiver relationship status was assessed among caregivers at Wave 1. See Table 1 for response options.

Analytic Methodology

Data from Wave 1 were analyzed using SPSS v23. Scale scores were created for all scales using the procedures described in Measures. Descriptive statistics for all measures were computed using frequency for categorical variables and mean/SD for continuous variables by family member (TGN youth, caregivers, siblings). Correlations were computed for family functioning variables. For families in which two caregivers participated, an average response for each item was calculated prior to calculating one overall score that represented both caregivers. The combined caregiver scores were used for correlations and models. The suicidality measures assessed among TGN youth were used descriptively, but were not used in the models because the items could not be combined across age groups due to differences in the time frame assessed (i.e., lifetime among youth age 13–14 years vs. past year among youth ages 15–17 years).

To test the hypotheses, linear regression models tested for cross-sectional associations between family functioning predictors (family communication, family satisfaction) from different family members' perspectives (TGN youth, caregivers, siblings) and TGN youths' mental health outcomes (self-harm, depressive symptoms, anxious symptoms, self-esteem, resiliency). Separate models tested each predictor-outcome pair (e.g., family communication reported by TGN youth predicting TGN youths' self-harm). Models adjusted for TGN youths' age in years and TGN youths' gender identity (trans feminine, trans masculine, non-binary). Results from both unadjusted and adjusted models are reported.

Results

Sample demographics by family member are reported in Table 1. Descriptive statistics for family functioning variables and correlations among family members' reports of family functioning are reported in Table 2. Descriptive statistics for TGN youths' mental health outcomes are reported in Table 3. Results from unadjusted and adjusted regression models testing associations between family functioning and TGN youths' mental health are reported in Table 4.

TGN Youths' Mental Health

TGN youth in this study reported substantial mental health concerns, including suicidal thoughts (30%), suicide plan (24%), and suicide attempts (15%) (Table 3). In addition, 49%

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of TGN youth in this study reported lifetime self-harm and 61% had a clinically significant depressive symptom score. Fifteen percent of caregivers reported that their TGN youth had been hospitalized for a suicide attempt, 17% had a TGN youth with a diagnosis of self-injury disorder, 40% had a TGN youth with a depression diagnosis, and 48% had a TGN youth with an anxiety disorder diagnosis. TGN youth had moderate self-esteem and resilience scores (self-esteem: $M = 27.55$; resilience: $M = 3.67$).

Family Functioning and TGN Youths' Mental Health

Better family communication, as reported by TGN youth, was associated with less self-harm, depressive symptoms and anxious symptoms, and greater self-esteem and resiliency among TGN youth (Table 4). In unadjusted models, family communication and family satisfaction reported by TGN youth were significant for all outcomes. Specifically, better family communication and greater family satisfaction were associated with less self-harm, depressive symptoms, and anxious symptoms, and greater self-esteem and resiliency. In adjusted models, family communication reported by TGN youth remained significant for all outcomes except self-harm. Family satisfaction reported by TGN youth remained significant in adjusted models for all outcomes except resiliency, which became marginally significant ($p = .05$). In sum, better family communication and greater family satisfaction was associated with less adverse mental health outcomes and greater self-esteem and resiliency among TGN youth. Family communication reported by caregivers and family satisfaction reported by caregivers and siblings were not significantly associated with any mental health outcomes among TGN youth.

Discussion

The overall purpose of this study was to understand how positive family functioning may be protective for TGN youth, who are at greater risk for adverse mental health outcomes compared to their cisgender peers (Connolly et al., 2016; Reisner et al., 2015). One aim of the current study was to describe the baseline mental health status of TGN youth participating in TTFN. TGN youth in this study reported substantial mental health concerns. In comparison to other studies of TGN youths' mental health (Connolly et al., 2016), TGN youth in this study reported similar levels of suicidality and depression and somewhat higher levels of self-harm. Although findings in the current study were consistent with previous research (Connolly et al., 2016), it is worth noting that these TGN youth have high levels of distress and mental health issues even coming from families supportive enough to seek medical care and/or participate together in a research project. It is also worth noting that TGN youth in this study may have significantly underreported mental health or safety concerns given the explicit mandated reported guidelines outlined in the study informed consent process. Specifically, the safety plan guidelines stated that any disclosure of threat to safety for the participants themselves (e.g., suicidality) or threats to others must be reported to caregivers and mental health professionals. It is likely that some TGN youth in the study chose not to disclose these experiences, even though they were occurring.

Previous research has found that family support is crucial to the health and well-being of TGN youth (Olson et al., 2016; Simons et al., 2013; Travers et al., 2012). One potential

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conclusion from the current study is that being part of a supportive family may not fully protect TGN youth from adverse mental health concerns if they are still experiencing body dysphoria (distress related to having a body that does not match their gender identity) and stigma from environments external to the family (e.g., being bullied at school). As described above, TGN individuals face substantial victimization in the school context (James et al., 2016; McGuire et al., 2010), as well as outside of school in the general community (Sterzing, Ratliff, Gartner, McGeough, & Johnson, 2017). TGN adolescents may face even more bullying than TGN children, as adolescents are in more social situations without adults, making them more vulnerable to victimization. In addition, societal gender roles and expression become more policed by peers during adolescence and TGN youth may be victimized for not adhering to gender expectations, particularly if they are non-binary (Sterzing et al., 2017). Adolescents are also faced with the new developmental task of anticipating and/or participating in sexual activities, which can be highly stressful for TGN teens and an area of life that would be less likely to confront them in their pre-pubertal years. It may also be the case in some of these families that although they were supportive enough to participate in a research study together at the time of recruitment, they may not have been initially supportive of the TGN youth. Families may also be undergoing their own transition to becoming the caregiver or sibling of a TGN youth, which may or may not be synchronous with the TGN youth's own gender transition. Therefore, mental health concerns may have originated in TGN youth during initial levels of family support that were then lower than at the time of participation in the study.

Mental health concerns of TGN youth in this sample may also be related to the psychological stress facing TGN youth during the adolescent developmental period. Adolescence may be a time of turmoil for some adolescents with numerous mental health concerns emerging during this time period (Kessler, Amminger, Aguilar-Gaxiola, Alonso, Lee, & Ustun, 2007) and increased conflict with caregivers (Allison & Schultz, 2004). Youth who are TGN must deal with additional challenges related to being TGN, including experiencing stigma and discrimination (James et al., 2016; McGuire et al., 2010). TGN youth must also negotiate burgeoning sexual experiences that may be uniquely different from their cisgender peers, including forming a sexual orientation identity that may or may not be related to their gender identity. TGN youth also engage with the medical system more so than cisgender youth if TGN youth are obtaining gender affirming treatments, such as cross-sex hormones or surgeries. These additional stressors may in part explain why TGN youth have a high risk for adverse mental health outcomes, even if they have a supportive family environment, and why TGN adolescents in particular may encounter mental health challenges more so than TGN children.

An additional aim of this study was to examine associations between TGN youths' mental health and family functioning reported by multiple family members. Results indicated that as expected, better family functioning was cross-sectionally associated with better mental health outcomes among TGN youth. This is consistent with previous research indicating that more positive experiences within the family (e.g., support) are associated with better health outcomes among TGN youth (Olson et al., 2016; Simons et al., 2013). The current study expands the growing knowledge base of the importance of family support to consider the functioning of the larger family system, consistent with a family systems theoretical

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approach (Cox & Paley, 1997; Minuchin, 1985). Notably, only TGN youths' own report of family functioning was significantly associated with their mental health in this study, which has important implications for clinical care of TGN youth and families. Family functioning variables were not significantly correlated across family members (i.e., TGN youth, caregivers, siblings), suggesting that family members may hold different perspectives on how well the family is functioning. For example, a caregiver may feel that the family has a high quality of communication, whereas the TGN youth may feel differently. It appears to be the TGN youth's own perspective of quality of family communication and satisfaction with family that is most closely related to their mental health.

This research has several implications for clinical practice and support services for TGN youth and families. First, it makes sense that family, and in particular parental support, is one factor of many that contributes to youth's mental health outcomes. Access to gender affirming care is a part, but not a whole measure of support for a child living their authentic gender identity. Parents may also support TGN youth by helping to facilitate their social transition, whereby TGN youth live as their affirmed gender identity at home and in public. Parental support for a youth's gender identity may differ between parents, and may evolve and vary over time (Pullen Sansfaçon, Robichaud, & Dumais-Michaud, 2015). While parental support and a safe, accepting home provides some aspects of resilience for youth, these factors are not enough to ensure youths' mental well-being. As the literature suggests, there are a whole host of additional sociocultural factors, such as peer, school and community environments, that are important aspects of adolescent development and would impact a youth's mental well-being (Shochet, Dadds, Ham, & Montague, 2006; Wickrama & Bryant, 2003). Thus, TGN youth may need support to help them navigate stigma external to the family. Attention should also be paid to improving discrimination and bullying policies at schools to ensure that TGN youth are supported in that environment. Second, it is important to take into consideration that TGN youth's own perspective of family functioning was the only perspective associated with their mental health. That caregiver and youth perspectives of family functioning differed and were differentially associated with the youth's mental health would be expected given the differing tasks of maturing through adolescence and parenting an adolescent. Therefore, as with all adolescent visits, private and confidential discussions with youth are important in both clinical and research assessment settings. In particular, reports of family functioning should be collected separately from different family members (including siblings), and focus should be placed on the TGN youth's own perspective of family functioning, as results from this study indicated that this perspective is most relevant to TGN youth's mental health.

This study has a number of limitations that should be considered. Although substantial efforts were made to recruit TGN youth who were not part of supportive families, the resulting sample comprised families that likely have a higher baseline of support than the majority of families with TGN youth. However, there is still variability in levels of family support and functioning in this sample, which give us a more nuanced picture. In addition, although efforts were made to recruit a diverse sample in terms of race/ethnicity, socioeconomic status, and urbanicity, the families in the current study were primarily White race/ethnicity and from metropolitan areas, and most of the caregivers were college-educated. Therefore, results from this study may not be generalizable to families with

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different sociodemographic backgrounds. Finally, the sample size for each type of family member was small, which limited our ability to draw stronger conclusions regarding the significance of each family member's perspective. Future research could obtain larger samples of siblings, in particular, to better understand their perspectives within the family system. A major strength of this study was its use of a CBPR approach to involve community members in all stages of the research process, which helped to ensure that this study represents the interests of families with transgender youth and the clinicians and organizations that support these families. Finally, this study was cross-sectional, which did not allow for examination of whether family functioning is associated longitudinally with TGN youths' mental health. These data were from a prospective cohort of families with TGN youth, so future analyses from this study will be able to address this limitation.

In conclusion, findings from this study indicated that despite being part of supportive families, TGN youth had substantial mental health concerns. Better family functioning was associated with better mental health outcomes among TGN youth, but only according to the TGN youth's own perspective of family functioning. This research speaks to the importance of providing wrap-around support services for families with transgender youth to support the individual youth, the family, as well as the family's interactions with environments that may be stigmatizing for TGN youth. In addition, TGN youth's own perspective of both family functioning and mental health should be assessed independently from caregivers' perspectives to ensure that the family system is fully assessed and supported and the youth's psychological experience fully understood.

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Table 1

Sample Demographic Characteristics by Family Member for Families with Transgender and Gender Nonconforming (TGN) Youth (N = 96 Family Members)

Measure	TGN Youth (*n* = 33)	Caregivers (*n* = 48)	Siblings (*n* = 15)
Age in years (*M/SD*)	15.2 (1.2)	50.3 (6.7)	17.9 (3.3)
Gender identity (*n, %*)			
Trans feminine (assigned male)	12 (36.4)	0 (0)	0 (0)
Trans masculine (assigned female)	17 (51.5)	0 (0)	0 (0)
Non-binary (assigned male)	1 (3.0)	0 (0)	0 (0)
Non-binary (assigned female)	3 (9.0)		
Cisgender girl/woman	0 (0)	32 (66.7)	7 (46.7)
Cisgender boy/man	0 (0)	16 (33.3)	8 (53.3)
Race/ethnicity (*n, %*)			
White	24 (72.7)	44 (91.7)	11 (73.3)
Hispanic or Latino/a	1 (3.0)	2 (4.2)	0 (0)
Asian	2 (6.1)	0 (0)	2 (13.3)
American Indian or Alaska Native	1 (3.0)	1 (2.1)	1 (6.7)
Mixed race/ethnicity	5 (15.2)	1 (2.1)	1 (6.7)
Current grade (*n, %*)			
7th grade equivalent	2 (6.1)		0 (0)
8th grade equivalent	5 (15.2)		3 (20.0)
9th grade equivalent	10 (30.3)		1 (6.7)
10th grade equivalent or higher	16 (48.5)		8 (53.3)
Not in school	0 (0)		3 (20.0)
Education level (*n, %*)			
Did not complete high school		1 (2.1)	
High school diploma/GED		5 (10.4)	
Associate's degree		7 (14.6)	
Bachelor's degree		16 (33.3)	
Master's degree		11 (22.9)	
Doctoral or professional degree		8 (16.7)	
Sexual orientation (*n, %*)			
Completely straight/heterosexual	7 (21.2)	33 (68.8)	11 (73.3)
Mostly straight/heterosexual	2 (6.1)	10 (20.8)	0 (0)
Bisexual	5 (15.2)	3 (6.3)	2 (13.3)
Mostly lesbian/gay	7 (21.2)	1 (2.1)	0 (0)
Completely lesbian/gay	4 (12.1)	1 (2.1)	1 (6.7)
Queer	7 (21.2)	0 (0)	0 (0)
Pansexual	13 (39.4)	0 (0)	1 (6.7)
Questioning	2 (6.1)	0 (0)	0 (0)
Another sexual orientation identity	4 (12.1)	0 (0)	1 (6.7)
Caregiver relationship status (*n, %*)			

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Measure	TGN Youth (*n* = 33)	Caregivers (*n* = 48)	Siblings (*n* = 15)
Single		3 (6.3)	
Married, living together		37 (77.1)	
Married, living apart		2 (4.2)	
Relationship, not living together		2 (4.2)	
Divorced		2 (4.2)	
Widowed		2 (4.2)	
TGN youth adoption status (*n, %*)			
No	30 (90.9)		
Yes	3 (9.1)		
Age at adoption, months (*M, SD*)	8 (7.0)		

Notes. TGN = transgender and gender nonconforming. Age range: 13–17 years for TGN youth, 37–69 years for caregivers, 14–24 for siblings. Percentages for sexual orientation, caregivers' partner status, and religion practiced by family may sum to greater than 100% because participants were allowed to select more than one response option. "Another sexual orientation identity" for TGN youth included: asexual and panromantic. "Another religion" included multiple religions and Celestialism.

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Table 2

Descriptive Statistics for Family Functioning Predictors by Family Member for Families with Transgender and Gender Nonconforming (TGN) Youth (N = 96 Family Members)

	M (SD)			*r*		
Family Functioning	**TGN Youth (*n* = 33)**	**Caregivers (*n* = 48)**	**Siblings (*n* = 15)**	**TGN Youth vs. Caregivers**	**TGN Youth vs. Siblings**	**Caregivers vs. Siblings**
Family communication (*M, SD*)	34.85 (6.92)	36.65 (4.15)	-	−.10	-	-
Family satisfaction (*M, SD*)	32.97 (8.02)	34.33 (6.07)	32.40 (8.75)	−.10	−.13	.13

Notes. TGN = transgender and gender nonconforming. Family communication (range: 16–50), family satisfaction (range: 16–50); higher scores indicate better family functioning. Siblings did not complete the family communication scale. For families with two caregivers, caregiver scores were averaged at the item level to calculate correlations. All correlations were non-significant.

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Table 3

Descriptive Statistics for Transgender and Gender Nonconforming (TGN) Youths' Mental Health Outcomes

Mental Health Outcomes	TGN Youth Self-Report (*n* = 33)	Caregiver Report (*n* = 48)
Suicidality (*n, %*)		
Suicidal thoughts		
Ever (age 13–14 years)	5 (38.5)	
Past year (age 15–17 years)	5 (25.0)	
Suicide plan		
Ever (age 13–14 years)	4 (30.8)	
Past year (age 15–17 years)	4 (20.0)	
Suicide attempts		
Ever (age 13–14 years)	3 (23.1)	
Past year (age 15–17 years)	2 (10.0)	
Hospitalization for suicide		5 (15.2)
Self-harm (*n, %*)		
Self-harm	16 (48.5)	
Self-injury disorder diagnosis		8 (16.7)
Depression		
Depressive symptoms (*M, SD*)	11.70 (7.58)	
Depressive symptom score ≥10 (*n, %*)	20 (60.6)	
Depression diagnosis (*n, %*)		19 (39.6)
Anxiety		
Anxious symptoms (*M, SD*)	14.55 (4.64)	
Anxiety disorder diagnosis (*n, %*)		23 (47.9)
Self-esteem (*M, SD*)	27.55 (7.15)	
Resiliency (*M, SD*)	3.67 (0.53)	

Notes. Depression (range: 0–30), anxiety (range: 6–24), self-esteem (range: 10–40), resiliency (range: 1–5). For suicidal thoughts, plan, and attempts, TGN youth answered different questions based on age; percent is based on age group ($n_{\text{age 13–14}} = 13$, $n_{\text{age 15–17}} = 20$). Caregiver report represents the TGN youth's mental health from the caregiver's perspective; siblings were not asked to report on the TGN youth's mental health.

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Table 4

Results from Regression Models with Family Functioning (Multiple Family Member Perspectives) Predicting Mental Health Among Transgender and Gender Nonconforming (TGN) Youth

	Mental Health Outcomes Among TGN Youth				
	Unadjusted Models				
Family Functioning Predictors	**Self-Harm β (SE)**	**Depressive Symptoms β (SE)**	**Anxious Symptoms β (SE)**	**Self-Esteem β (SE)**	**Resiliency β (SE)**
Family communication					
Reported by TGN youth	−.46 (.01)**	−.74 (.13)***	−.60 (.10)***	.76 (.12)***	.71 (.01)***
Reported by Caregivers	−.08 (.02)	−.03 (.35)	.10 (.22)	.07 (.33)	.06 (.03)
Family satisfaction					
Reported by TGN youth	−.49 (.01)**	−.63 (.13)***	−.52 (.09)**	.75 (.11)***	.48 (.01)**
Reported by Caregivers	.16 (.01)	−.004 (.20)	−.07 (.12)	−.04 (.19)	.14 (.01)
Reported by Siblings	.16 (.02)	.23 (.23)	.32 (.15)	−.06 (.17)	−.14 (.02)
	Adjusted Models				
Family communication					
Reported by TGN youth	−.29 (.01)	−.65 (.16)***	−.52 (.12)**	.70 (.15)***	.58 (.01)**
Reported by Caregivers	.13 (.02)	.14 (.31)	.24 (.20)	−.06 (.31)	−.08 (.02)
Family satisfaction					
Reported by TGN youth	−.30 (.01)*	−.47 (.13)**	−.40 (.09)*	.65 (.11)***	.31 (.01)†
Reported by Caregivers	.29 (.01)*	.11 (.17)	.02 (.11)	−.14 (.17)	.04 (.01)
Reported by Siblings	.14 (.01)	.12 (.19)	.20 (.15)	.08 (.17)	.02 (.01)

Notes. β=Beta, SE=Standard Error. Siblings did not complete the family communication scale. The referent group for self-harm is no self-harm. Adjusted models control for TGN youth age (continuous in years) and gender identity (trans masculine, trans feminine, non-binary). For families with two caregivers, caregiver scores were averaged at the item level.

*p<.05,

**p<.01,

***p<.001,

†p=.05